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August 05, 2010

ANALYTICAL TEST RESULTS

Raymond Siegener  
GEI Consultants, Inc.  
400 Unicorn Park Drive  
Woburn, MA 01801  
TEL: (781) 721-4098  
FAX: (781) 721-4073

Subject: 09382-2 Former Canton Airport

Workorder No.: 1007096

Dear Raymond Siegener:

AMRO Environmental Laboratories Corp. received 2 samples on 7/30/2010 for the analyses presented in the following report.

AMRO is accredited in accordance with NELAC and certifies that these test results meet all the requirements of NELAC, where applicable, unless otherwise noted in the case narrative.

The enclosed Sample Receipt Checklist details the condition of your sample(s) upon receipt. Please be advised that any unused sample volume and sample extracts will be stored for a period of 60 days from sample receipt date (90 days for samples from New York). After this time, AMRO will properly dispose of the remaining sample(s). If you require further analysis, or need the samples held for a longer period, please contact us immediately.

This report consists of a total of 12 pages. This letter is an integral part of your data report. All results in this project relate only to the sample(s) as received by the laboratory and documented in the Chain-of-Custody. This report shall not be reproduced except in full, without the written approval of the laboratory. If you have any questions regarding this project in the future, please refer to the Workorder Number above.

Sincerely,

Nancy Stewart  
Vice President

State Certifications: NH (NELAC): 1001, MA: M-NH012, CT: PH-0758, NY: 11278 (NELAC), ME: NH012 and 1001.

*Hard copy of the State Certification is available upon request.*

**AMRO Environmental Laboratories Corp.**

Date: 04-Aug-10

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**CLIENT:** GEI Consultants, Inc.  
**Project:** 09382-2 Former Canton Airport  
**Lab Order:** 1007096  
**Date Received:** 7/30/2010

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**Work Order Sample Summary**

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Lab Sample ID	Client Sample ID	Collection Date	Collection Time
1007096-01A	M91579-45 (093822-HS-AP-	5/20/2010	9:45 AM
1007096-02A	M91579-48 (093822-HS-AQ-	5/20/2010	9:48 AM

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# AMRO Environmental Laboratories Corp.

04-Aug-10

Lab Order: 1007096

Client: GEI Consultants, Inc.

Project: 09382-2 Former Canton Airport

## DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Analytical Test Name	Preparatory Test Name	Prep Date	Batch ID	Analysis Date	TCLP Date
1007096-01A	M91579-45 (093822-HS-AP)	5/20/2010 9:45:00 AM	Soil	EPA 8082 PCBS IN SOIL/SOLIDS	EPA 8082 PCBS IN SOIL/SOLIDS	8/3/2010	20484	8/3/2010	
				EPA 3540C SOPREP SOXHLET: PCBS	EPA 3540C SOPREP SOXHLET: PCBS	8/2/2010	20484	8/3/2010	
				Percent Moisture	Percent Moisture			8/3/2010	
								R45122	
1007096-02A	M91579-48 (093822-HS-AQ)	5/20/2010 9:48:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS	EPA 8082 PCBS IN SOIL/SOLIDS	8/3/2010	20484	8/3/2010	
				EPA 3540C SOPREP SOXHLET: PCBS	EPA 3540C SOPREP SOXHLET: PCBS	8/2/2010	20484	8/3/2010	
				Percent Moisture	Percent Moisture			8/3/2010	
								R45122	



# SAMPLE RECEIPT CHECKLIST

Client: <u>GEI</u> Project Name: <u>09382-2 Former Canton Airport</u> Ship via: (circle one) Fed Ex., UPS, <u>AMRO Courier</u> Hand Del., Other Courier, Other: _____	AMRO ID: <u>10070916</u> Date Rec.: <u>7/30/10</u> Date Due: <u>8/10/10</u>
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Items to be Checked Upon Receipt	Yes	No	NA	Comments
1. Army Samples received in individual plastic bags?			<input checked="" type="checkbox"/>	
2. Custody Seals present?			<input checked="" type="checkbox"/>	
3. Custody Seals Intact?			<input checked="" type="checkbox"/>	
4. Air Bill included in folder if received?			<input checked="" type="checkbox"/>	
5. Is COC included with samples?	<input checked="" type="checkbox"/>			
6. Is COC signed and dated by client?	<input checked="" type="checkbox"/>			
7. Laboratory receipt temperature. TEMP = <u>5°</u>				
Samples rec. with ice <input checked="" type="checkbox"/> ice packs <input type="checkbox"/> neither <input type="checkbox"/>				
8. Were samples received the same day they were sampled?		<input checked="" type="checkbox"/>		
Is client temperature = or <6°C ?				
If no obtain authorization from the client for the analyses.				
Client authorization from: _____ Date: _____ Obtained by: _____				
9. Is the COC filled out correctly and completely?	<input checked="" type="checkbox"/>			
10. Does the info on the COC match the samples?	<input checked="" type="checkbox"/>			
11. Were samples rec. within holding time?	<input checked="" type="checkbox"/>			
12. Were all samples properly labeled?	<input checked="" type="checkbox"/>			
13. Were all samples properly preserved?			<input checked="" type="checkbox"/>	
14. Were proper sample containers used?	<input checked="" type="checkbox"/>			
15. Were all samples received intact? (none broken or leaking)	<input checked="" type="checkbox"/>			
16. Were VOA vials rec. with no air bubbles?			<input checked="" type="checkbox"/>	
17. Were the sample volumes sufficient for requested analysis?	<input checked="" type="checkbox"/>			
18. Were all samples received?	<input checked="" type="checkbox"/>			
19. VPH and VOA Soils only:				
Sampling Method VPH (circle one): M=Methanol, E=EnCore (air-tight container)				
Sampling Method VOA (circle one): M=Methanol, SB=Sodium Bisulfate, E=EnCore, B=Bulk				
If M or SB:				
Does preservative cover the soil?				
If NO then client must be faxed.				
Does preservation level come close to the fill line on the vial?				
If NO then client must be faxed.				
Were vials provided by AMRO?				
If NO then weights MUST be obtained from client				
Was dry weight aliquot provided?				
If NO then fax client and inform the VOA lab ASAP.				
20. Subcontracted Samples:				
What samples sent:			<input checked="" type="checkbox"/>	
Where sent:				
Date:				
Analysis:				
TAT:				
21. Information entered into:				
Internal Tracking Log?	<input checked="" type="checkbox"/>			
Dry Weight Log?	<input checked="" type="checkbox"/>			
Client Log?			<input checked="" type="checkbox"/>	
Composite Log?			<input checked="" type="checkbox"/>	
Filtration Log?			<input checked="" type="checkbox"/>	
Received By: <u>KW</u>	Date: <u>7/30/10</u>	Logged in By: <u>KW</u>	Date: <u>7/30/10</u>	
Labeled By: <u>KW</u>	Date: <u>7/30/10</u>	Checked By: <u>[Signature]</u>	Date: <u>7-30-10</u>	

**AMRO Environmental Laboratories Corp.**

Date: 05-Aug-10

CLIENT: GEI Consultants, Inc.  
Project: 09382-2 Former Canton Airport  
Lab Order: 1007096

**CASE NARRATIVE**

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PCBs:

1. The surrogates, Tetrachloro-m-xylene and Decachlorobiphenyl , were diluted out in sample; M91579-48 (093822- HS-AQ-10) (1007096-02).
2. The samples were analyzed at a dilution due to the high levels of Aroclor 1260.

# MassDEP Analytical Protocol Certification Form

Laboratory Name: AMRO Environmental Lab. Corp.

Project #: 09382-2

Project Location: Former Canton Airport

RTN:

This Form provides certifications for the following data set: list Laboratory Sample ID Number(s):

1007096-01A, 02A

Matrices: Groundwater/Surface Water Soil/Sediment ☒ Drinking Water Air Other:

**CAM Protocol** (check all that apply below):

8260 VOC CAM II A	7470/7471 Hg CAM III B	MassDEP VPH CAM IV A	8081 Pesticides CAM V B	7196 Hex Cr CAM VI B	MassDEP APH CAM IX A
8270 SVOC CAM II B	7010 Metals CAM III C	MassDEP EPH CAM IV B	8151 Herbicides CAM V C	8330 Explosives CAM VIII A	TO-15 VOC CAM IX B
6010 Metals CAM III A	6020 Metals CAM III D	8082 PCB <input checked="" type="checkbox"/> CAM V A	9014 Total Cyanide/PAC CAM VI A	6860 Perchlorate CAM VIII B	

**Affirmative Responses to Questions A through F are required for "Presumptive Certainty" status**

<b>A</b>	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	<input checked="" type="radio"/> Yes <input type="radio"/> No
<b>B</b>	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	<input checked="" type="radio"/> Yes <input type="radio"/> No
<b>C</b>	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	<input checked="" type="radio"/> Yes <input type="radio"/> No
<b>D</b>	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	<input checked="" type="radio"/> Yes <input type="radio"/> No
<b>E</b>	VPH, EPH, APH, and TO-15 only: a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	Yes <input type="radio"/> No <input type="radio"/> N/A
<b>F</b>	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	<input checked="" type="radio"/> Yes <input type="radio"/> No

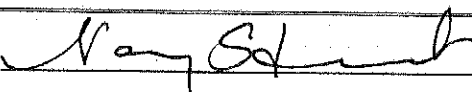
**Responses to Questions G, H and I below are required for "Presumptive Certainty" status**

<b>G</b>	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>Data User Note:</b> Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40.1056 (2)(k) and WSC-07-350.		
<b>H</b>	Were all QC performance standards specified in the CAM protocol(s) achieved?	Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>I</b>	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	<input checked="" type="radio"/> Yes <input type="radio"/> No

<sup>1</sup>All negative responses must be addressed in an attached laboratory narrative.

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature:



Position: Vice President

Printed Name: Nancy Stewart

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Date:

8-5-10

## DATA COMMENT PAGE

### Organic Data Qualifiers

ND	Indicates compound was analyzed for, but not detected at or above the reporting limit.
J	Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the data indicates the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than the method detection limit.
H	Method prescribed holding time exceeded.
E	This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.
B	This flag is used when the analyte is found in the associated blank as well as in the sample.
R	RPD outside accepted recovery limits
RL	Reporting limit; defined as the lowest concentration the laboratory can accurately quantitate.
S	Spike Recovery outside accepted recovery limits.
#	See Case Narrative

### Micro Data Qualifiers

TNTC	Too numerous to count
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### Inorganic Data Qualifiers

ND or U	Indicates element was analyzed for, but not detected at or above the reporting limit.
J	Indicates a value greater than or equal to the method detection limit, but less than the quantitation limit.
H	Indicates analytical holding time exceedance.
B	Indicates that the analyte is found in the associated blank, as well as in the sample.
MSA	Indicates value determined by the Method of Standard Addition
E	This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.
R	RPD outside accepted recovery limits
RL	Reporting limit; defined as the lowest concentration the laboratory can accurately quantitate.
S	Spike Recovery outside accepted recovery limits.
W	Post-digestion spike for Furnace AA analysis is out of control limits (85-115), while sample absorbance is less than 50% of spike absorbance.
*	Duplicate analysis not within control limits.
+	Indicates the correlation coefficient for the Method of Standard Addition is less than 0.995
#	See Case Narrative

### Report Comments:

1. Soil, sediment and sludge sample results are reported on a "dry weight" basis.
2. Reporting limits are adjusted for sample size used, dilutions and moisture content, if applicable.



**AMRO Environmental Laboratories Corp.**

Date: 04-Aug-10

**CLIENT:** GEI Consultants, Inc.  
**Project:** 09382-2 Former Canton Airport

**Lab Order:** 1007096**Lab ID:** 1007096-01**Collection Date:** 5/20/2010 9:45:00 AM**Collection Time:****Client Sample ID:** M91579-45 (093822-HS-AP-10)**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**PCBS BY EPA8082****SW8082****Analyst:** KA

Aroclor 1016	ND	5,700		µg/Kg-dry	100	8/3/2010 4:18:00 PM
Aroclor 1221	ND	5,700		µg/Kg-dry	100	8/3/2010 4:18:00 PM
Aroclor 1232	ND	5,700		µg/Kg-dry	100	8/3/2010 4:18:00 PM
Aroclor 1242	ND	5,700		µg/Kg-dry	100	8/3/2010 4:18:00 PM
Aroclor 1248	ND	5,700		µg/Kg-dry	100	8/3/2010 4:18:00 PM
Aroclor 1254	ND	5,700		µg/Kg-dry	100	8/3/2010 4:18:00 PM
Aroclor 1260	42,000	5,700		µg/Kg-dry	100	8/3/2010 4:18:00 PM
Aroclor 1262	ND	5,700		µg/Kg-dry	100	8/3/2010 4:18:00 PM
Aroclor 1268	ND	5,700		µg/Kg-dry	100	8/3/2010 4:18:00 PM
Surr: Tetrachloro-m-xylene	105	30-150		%REC	100	8/3/2010 4:18:00 PM
Surr: Decachlorobiphenyl	111	30-150		%REC	100	8/3/2010 4:18:00 PM

**Lab ID:** 1007096-02**Collection Date:** 5/20/2010 9:48:00 AM**Collection Time:****Client Sample ID:** M91579-48 (093822-HS-AQ-10)**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**PCBS BY EPA8082****SW8082****Analyst:** KA

Aroclor 1016	ND	53,000		µg/Kg-dry	1000	8/3/2010 3:52:00 PM
Aroclor 1221	ND	53,000		µg/Kg-dry	1000	8/3/2010 3:52:00 PM
Aroclor 1232	ND	53,000		µg/Kg-dry	1000	8/3/2010 3:52:00 PM
Aroclor 1242	ND	53,000		µg/Kg-dry	1000	8/3/2010 3:52:00 PM
Aroclor 1248	ND	53,000		µg/Kg-dry	1000	8/3/2010 3:52:00 PM
Aroclor 1254	ND	53,000		µg/Kg-dry	1000	8/3/2010 3:52:00 PM
Aroclor 1260	100,000	53,000		µg/Kg-dry	1000	8/3/2010 3:52:00 PM
Aroclor 1262	ND	53,000		µg/Kg-dry	1000	8/3/2010 3:52:00 PM
Aroclor 1268	ND	53,000		µg/Kg-dry	1000	8/3/2010 3:52:00 PM
Surr: Tetrachloro-m-xylene	0	30-150	S	%REC	1000	8/3/2010 3:52:00 PM
Surr: Decachlorobiphenyl	0	30-150	S	%REC	1000	8/3/2010 3:52:00 PM

# AMRO Environmental Laboratories Corp.

Date: 05-Aug-10

CLIENT: GEI Consultants, Inc.  
 Work Order: 1007096  
 Project: 09382-2 Former Canton Airport  
**QC SUMMARY REPORT**  
 Method Blank

Sample ID: MB-20484 Batch ID: 20484 Test Code: SW8082 Units: µg/Kg Analysis Date: 8/3/2010 2:06:00 PM Prep Date: 8/2/2010  
 Client ID: Run ID: GC-ELVIS\_100803A SeqNo: 749800

Analyte	QC Sample Result	RL	Units	QC Spike Amount	Original Sample Result	%REC	LowLimit	HighLimit	Original Sample or MS Result	%RPD	RPDLimit	Qua
Aroclor 1016	ND	50	µg/Kg									
Aroclor 1221	ND	50	µg/Kg									
Aroclor 1232	ND	50	µg/Kg									
Aroclor 1242	ND	50	µg/Kg									
Aroclor 1248	ND	50	µg/Kg									
Aroclor 1254	ND	50	µg/Kg									
Aroclor 1260	ND	50	µg/Kg									
Aroclor 1262	ND	50	µg/Kg									
Aroclor 1268	ND	50	µg/Kg									
Surr: Tetrachloro-m-xylene	15.36	0	µg/Kg	16	0	96	30	150	0			
Surr: Decachlorobiphenyl	14.42	0	µg/Kg	18	0	90.1	30	150	0			

**Qualifiers:** ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits B - Analyte detected in the associated Method Blank  
 J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits NA - Not applicable where J values or ND results occur  
 RL - Reporting Limit; defined as the lowest concentration the laboratory can accurately quantitate.

# AMRO Environmental Laboratories Corp.

Date: 05-Aug-10

CLIENT: GEI Consultants, Inc.  
 Work Order: 1007096  
 Project: 09382-2 Former Canton Airport

## QC SUMMARY REPORT

Laboratory Control Spike

Sample ID: LCS-20484	Batch ID: 20484	Test Code: SW8082	Units: µg/Kg	Analysis Date 8/3/2010 2:33:00 PM	Prep Date: 8/2/2010							
Client ID:		Run ID: GC-ELVIS_100803A		SeqNo: 749801								
Analyte	QC Sample Result	RL	Units	QC Spike Amount	Original Sample Result	%REC	LowLimit	HighLimit	Original Sample or MS Result	%RPD	RPDLimit	Qua
Aroclor 1016	891.1	50	µg/Kg	1000	0	89.1	70.9	125	0			
Aroclor 1260	866.3	50	µg/Kg	1000	0	86.6	60.1	126	0			
Surr: Tetrachloro-m-xylene	15.37	0	µg/Kg	16	0	96.1	30	150	0			
Surr: Decachlorobiphenyl	15.07	0	µg/Kg	16	0	94.2	30	150	0			

Sample ID: LCSD-20484	Batch ID: 20484	Test Code: SW8082	Units: µg/Kg	Analysis Date 8/3/2010 2:59:00 PM	Prep Date: 8/2/2010							
Client ID:		Run ID: GC-ELVIS_100803A		SeqNo: 749802								
Analyte	QC Sample Result	RL	Units	QC Spike Amount	Original Sample Result	%REC	LowLimit	HighLimit	Original Sample or MS Result	%RPD	RPDLimit	Qua
Aroclor 1016	924.1	50	µg/Kg	1000	0	92.4	70.9	125	891.1	3.63	50	
Aroclor 1260	881.4	50	µg/Kg	1000	0	88.1	60.1	126	866.3	1.73	50	
Surr: Tetrachloro-m-xylene	15.07	0	µg/Kg	16	0	94.2	30	150	0	0	0	
Surr: Decachlorobiphenyl	14.75	0	µg/Kg	16	0	92.2	30	150	0	0	0	

Qualifiers: ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits  
 RL - Reporting Limit, defined as the lowest concentration the laboratory can accurately quantitate.

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits  
 B - Analyte detected in the associated Method Blank  
 NA - Not applicable where J values or ND results occur

**AMRO Environmental Laboratories Corp.**

Date: 04-Aug-10

**CLIENT:** GEI Consultants, Inc.  
**Project:** 09382-2 Former Canton Airport**Lab Order:** 1007096**Lab ID:** 1007096-01**Collection Date:** 5/20/2010 9:45:00 AM**Collection Time:****Client Sample ID:** M91579-45 (093822-HS-AP-10)**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**PERCENT MOISTURE****D2216****Analyst: MG**

Percent Moisture	14.0	0		wt%	1	8/3/2010
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**Lab ID:** 1007096-02**Collection Date:** 5/20/2010 9:48:00 AM**Collection Time:****Client Sample ID:** M91579-48 (093822-HS-AQ-10)**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**PERCENT MOISTURE****D2216****Analyst: MG**

Percent Moisture	9.0	0		wt%	1	8/3/2010
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